

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US03/24188

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61B5/085

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	GB 2 077 444 A (DRAEGERWERK AG) 16 December 1981 (1981-12-16) page 1, line 35 -page 2, line 24	1,2
A		3-34
Y	US 4 802 492 A (GRUNSTEIN MICHAEL M) 7 February 1989 (1989-02-07) column 5, line 1-39	1,2
X	US 6 142 952 A (BEHBEHANI KHOSROW ET AL) 7 November 2000 (2000-11-07) column 2, line 38 -column 3, line 64	8
A	US 5 617 846 A (GRAETZ BERND ET AL) 8 April 1997 (1997-04-08) the whole document	1-34



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

9 January 2004

Date of mailing of the international search report

20/01/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3016

Authorized officer

Rivera Pons, C

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP93/24188

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
GB 2077444	A	16-12-1981	DE 3021326 A1	17-12-1981
			FR 2483769 A1	11-12-1981
			JP 57022744 A	05-02-1982
			NL 8101088 A	04-01-1982
			SE 453884 B	14-03-1988
			SE 8102322 A	07-12-1981
US 4802492	A	07-02-1989	NONE	
US 6142952	A	07-11-2000	NONE	
US 5617846	A	08-04-1997	AT 244033 T	15-07-2003
			CA 2157815 A1	09-03-1996
			DE 59510734 D1	07-08-2003
			DK 705615 T3	20-10-2003
			EP 1306099 A2	02-05-2003
			EP 0705615 A1	10-04-1996
			FI 954092 A	09-03-1996
			NO 953455 A	11-03-1996